

# QUINOA

Peruvian Rice, Tigrillo

*Chenopodium quinoa*

Chenopodiaceae

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## ECHO® PLANT INFORMATION SHEET

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### Origin

The Incas regarded Quinoa as sacred, referring to it as “mother grain.” It was second in importance only to corn in the Incan Empire, which extended over much of the Andes Mountains in South America. Today, it remains virtually unknown outside of Argentina, Bolivia, Chile, Colombia, Ecuador, and Peru.

### Uses

Traditionally the Quinoa grain is toasted, ground into flour, or boiled and eaten like rice. Quinoa leaves can be eaten as a green vegetable, eaten fresh or cooked, and all parts of the plant--leaves, stalks, and grain--can be used as an animal feed.

### Common Names

- Spanish
  - Quinoa
  - Arroz De Peru
  - Arrochillo

### Cultivation

Quinoa is known for its tolerance of poor conditions such as high elevation, poorly drained soils, cold regions, and drought. Plant the seeds no deeper than 1.5 cm (0.5 in) and 0.3-0.6 m (1-2 ft) apart. Do not overwater, as Quinoa does not tolerate excessive moisture. Seeds generally germinate within 4 days.

### Harvesting and Seed Production

Because panicles on the same plant mature at different times, harvesting is usually done by hand. A high seeding rate encourages the plant to produce only a main panicle, which should help to make the period of maturity more uniform. If the harvest is not properly timed, shattering will become a problem. Once harvested, seedheads should be winnowed to remove the husk and dried. Seed must be especially dry when stored because it germinates quickly.

### Pests and Diseases

Generally there is very little loss to pests and diseases, but in intensive systems, pest and disease problems are likely to emerge.

### Cooking and Nutrition

Quinoa is an exceptionally nutritious and balanced food containing protein, fat, oil, and starch. “Its grain is rich in protein and contains a better amino acid balance than the protein in most cereals. It is made into flour for baked goods, breakfast cereals, beer, soups, desserts and even livestock feed. When cooked in water, it swells and becomes almost transparent. It has a mild taste and a firm texture like that of wild rice. Traditionally, Quinoa is prepared like common rice or is used to thicken soups, but some varieties are also popped like popcorn (Lost Crops of the Incas, the National Academy Press, 1989).” The leaves may be eaten fresh or cooked. One important drawback to note is that the seeds contain a substance called saponins, located in the seed coat. These cause an extremely bitter flavor. Soak or wash the grains in water until all the foam disappears to remove the saponins. The leaves are also a nutritious green vegetable comparable to spinach and are low in oxalate and nitrate anti-nutritive substances.

### References

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=2509>